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ABSTRACT

In Hungary, a countrywide survey of school and/or career choice intentions among seventh-grade primary school pupils was complemented by an examination of the motives playing a role in the choice. School achievement was the strongest factor that decides the tendency of the intention of choosing a secondary school. Regarding career choices, the choice of level of future career was also primarily determined by pupils' average school achievement. Since school achievement and family background were closely related, high prestige professional careers were chosen by children from professional families. Choice of school and choice of career were closely linked, interrelated processes. School and career choice reflected a general need of social mobility that the rising generation should attain a higher educational level and occupational status than their predecessors. Changes in the career motivations of primary school students compared to the early 1960s indicated the importance of (1) good working conditions, (2) social prestige attainable through a career, and (3) sociability. Position in the social hierarchy strongly determined career choice conceptions and their realization. The positive motives important from the viewpoint of career choice were also found to be important from the viewpoint of school achievement. (YLB)

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National Institute of Education
Budapest, 1984

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INTRODUCTION

Vocational guidance fulfils a special function of transmitting and reconciling the interests of the individual and society. With the help of manysided individual advising, orientation and information it tries to approach intentions to needs, individual conceptions to the objective possibilities of reality.

One of the particular features of our system of public education is that the greater part of the rising generation - and their family - are confronted with the problem of choosing their future career as early as in primary school. The decision then made is not always unique and irreproducible but in the overwhelming majority of cases it exerts a decisive impact on the individual's future career.

Direct and indirect vocational guidance and their development requires from time to time the comparison of intentions and needs (possibilities).

Developing the methods of vocational guidance requires us to periodically compare intentions and present and future needs and possibilities on a national scale. The survey extended to the whole country served several purposes:

a/ the implementation of the socio-political functions of vocational guidance makes it necessary to get acquainted with the career ambitions of the social strata wishing to assert different interests. In the knowledge of these intentions one can work out the differentiated methods of vocational guidance and the means and directions of the special treatment of this or that social stratum;

b/ comparison with earlier findings of similar surveys makes it possible to follow the changes in the factors influencing intentions and find out their stability or fluctuation;

c/ the comparison of career ambitions and the medium/long-range manpower needs of the economy makes it possible to predict the expected evolution of intentions and needs; this, in turn, permits to signal possible tensions beforehand;

d/ we tried to find an answer to that (much-discussed) question whether primary-school pupils chose a school or a career, and if both, what was the connections between the two choices, and which was more determinant.

We complemented the survey of school and/or career choice intentions with the examination of the motives playing a role in the choice. The questionnaire method in itself did not permit us to learn the individual motives which played a role in establishing intentions. This induced us to use the Csirszka[1] motivation questionnaire used in vocatio-

nal guidance. This method permits to learn the needs and values which have played a role in motivations and intentions.

We believed that the knowledge of the specific features appearing in the needs and value systems of pupils belonging to different social strata will bring us nearer to understanding the differences in school- and career choice and will enable us to explain the reasons for some phenomena.

I. CHOICE OF SCHOOL

We have investigated the intentions of primary school pupils in the choice of school and career in the second term of the school-year 1981/82, among 7th grade pupils[2]. The survey was made on a national representative sample and covered 4050 pupils, i.e. 3 per cent of all 7th formers of that school-year.

Our investigations comprised the following dependent variables:

- choice of school
- choice of career
- average marks
- average marks per subject
- favourite subject

Independent variables:

- domicile (type of place of residence)
- curriculum speciality of class
- family structure
- age of father and mother
- educational level of father and mother, and of both together
- profession of father and mother, and both together
- intention of continuing studies
- choice of school, first and second choice
- choice of career, first and second choice
- parents' opinion
- reason for not continuing studies; further plans
- reference groups
- outside influence on career choice
- marks per subject
- favourite subject
- intention to take up higher studies
- opinion of form-master
- proposal of form-master

We measured the strength of variable correlations with the mathematical statistical method (that is with independence examination: chi square test and contingency-coefficient, and in some cases with non-linear correlation coefficient).

In 1982 98.3 per cent of all general school 7th formers wished to continue their studies in secondary school: 93.2 per cent had chosen the type of school, 5.1 per cent were still uncertain. There was almost no difference between the sexes in the intention to study further: 98.4 per cent of the boys and 98.2 per cent of the girls wanted to continue their studies. The pattern of the school-choice intention varied according to the type of settlement where the school was, and also according to sex.

Table 1

Break-down according to choice of school, students' sex, and type of settlement

type of school		type of settlement				
		capital	county seat	other town	village	total
grammar sch.	boys	23.7	25.6	16.6	8.4	15.5
	girls	33.6	39.5	27.0	20.4	27.6
technical secondary sch.	boys	45.3	40.8	34.9	30.0	35.3
	birls	51.3	41.8	41.6	39.3	42.0
vocational training sch.	boys	22.7	28.7	41.0	53.1	41.4
	girls	7.4	11.6	21.2	28.0	20.3
training course	boys	0.0	0.0	0.0	0.0	0.0
	girls	3.8	3.8	3.3	4.5	4.0
no choice yet	boys	8.2	4.1	6.7	5.4	5.9
	girls	3.8	3.1	5.6	4.5	4.3
no further studies	boys	0.4	0.6	0.6	2.9	1.6
	girls	0.0	0.1	1.2	3.5	1.8
total	boys	100.0	100.0	100.0	100.0	100.0
	girls	100.0	100.0	100.0	100.0	100.0

The curriculum speciality of the pupil's class also exerts its influence on the choice of secondary school.

Almost twice as many students wish to proceed to grammar school from classes with special curriculum than from classes with general

curricula. Their choice of a technical secondary school is more or less the same, hence fewer children wish to go to vocational training schools from these classes. Another difference is that practically all students from a class with special curriculum wish to continue their studies.

In the independence examination family structure proved to be an unimportant factor ($p < 0,01$ $C=0,055$)[3].

Table 2

Ratio of students wishing to learn in secondary schools which give a certificate of final examination according to their family conditions

family conditions	distribution of students	ratio of students wishing to go to secondary school
living with father and mother	82.0	61.6
living with foster father and real mother	4.6	58.3
living with mother only	9.4	55.8
living with father only	1.1	43.5
living with father and foster mother	0.7	43.3
living with foster parents	0.5	52.7
living with grandparents	0.7	46.7
living with relatives	0.3	50.0
raised in children's homes	0.6	19.2
total	100.0	60.2

Here one can already see what will be confirmed later in more detail: namely that the influence of mothers on school achievement and choice of school and career is stronger than the influence of fathers.

This survey has also demonstrated that the ratio of children living in broken homes or raised by others than their parents is high: out of 100 13-14 year old children only 82 live in a complete family, 96 live with their mother, 84 with their father and 2 without both parents. Their underprivileged conditions show themselves in their choice of school and in their later career.

Obviously the stronger influence of mothers is (partly) due to the fact that more children live with their mothers than with their fathers. Since this family structure is a given fact, more attention has to be paid to the role and influence of mothers.

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The correlations between parents' age and their child's choice of school were weak (father: $p < 0,01$ $C=0,063$, mother: $p < 0,001$ $C=0,077$) and they stemmed rather from the differences in the educational level of certain parental age groups.

We examined the evolution of school choices also according to the parents' educational level and occupation which determine their social status. In agreement with earlier investigations we found that these were the two factors which determined the choice of school, and the level of schooling was the stronger of the two.

Earlier, similar investigations had examined only the influence of the educational level and occupation of the father on the choice of school and career. Now we extended our survey to the mother's educational level and to the educational level and occupation of both parents taken together. The values of the contingency coefficients expressing the strength of the correlation in the case of individual variables are the following:

- father's educational level	$p < 0,001$	$C=0,205$
- mother's educational level	$p < 0,001$	$C=0,213$
- parents schooling together	$p < 0,001$	$C=0,230$
- father's occupation	$p < 0,001$	$C=0,194$
- mother's occupation	$p < 0,001$	$C=0,198$
- parents' occupation together	$p < 0,001$	$C=0,215$

The parents' level of schooling taken together exerts a stronger impact on the choice of school than the two factors examined separately. This is so despite the fact that

- in 50,5 per cent of all cases the parents' educational level is the same;
- in 32,0 per cent of all cases the mother's educational level is higher.

We defined the level of education by the number of years spent at school. So we distinguished:

- graduates with a diploma: 17 school-years on the average;
- secondary school certificate: 12 school-years on the average;
- elementary educational level: 9 school-years on the average;
- less than elementary: 6 school-years on the average.

The connection between parents' occupation and their child's choice of school is a little less strong than between their educational level and their child's choice of school. We consider this natural because the occupational level is determined by the educational level and if there existed complete congruence between the schooling level and occupation[4], the impact of the two factors would be identical. However, since this congruence is only partial, and in the parents' age group any inadequacy between educational level and occupation tends to be a higher level of occupation compared to schooling, it is clear that occupation exerts a lesser impact on the choice of school.

It is interesting to note the students' opinion about the attitude of their parents concerning their choice of school and/or career.

Table 3

Correlation of students' choice of school and parents' level of schooling taken together

Parents' schooling years	chosen school: grammar school	technical secondary	vocational training	break down
17-17 years	75,0	20,1	2,4	6,0
17-12 years	57,5	32,6	7,3	7,1
12-12 years	33,5	48,6	14,5	13,7
12- 9 years	21,2	51,5	23,6	14,6
17- 9 years	20,8	57,1	20,8	1,9
9- 9 years	10,4	40,5	42,4	39,3
12- 6 years	4,2	37,5	50,0	0,6
9- 6 years	4,1	26,8	59,5	8,4
6- 6 years	3,5	17,0	55,0	7,7

Parents' attitudes:

- they suggested the choice 10,6 per cent
- they agree with the choice 63,2 per cent
- they oppose " 1,8 per cent
- they do not interfere 14,6 per cent
- they do not discuss it 9,8 per cent

The correlation with school choice: $p < 0,001$ C=0,250.

The overwhelming majority of students believe that they have made their choice and the parents agreed; only 10,6 per cent said that they believed that the parents had made the choice. Obviously it cannot be said that three quarters of the 13 year-olds have worked out their choices of school and career autonomously but they believe that they have made the choice; this means that they were equal partners in planning.

The answers of students show that only a little over three quarters can count on their parents' help.

The extent of parents' help in the choice of school or career depends upon their educational level ($p < 0,001$ C=0,123). The table shows that the lower the parents' level of schooling, the more their children are left to themselves; the problem is probably not that parents with lower schooling will not help; they are unable to do so.

There are no exterior factors to counteract this disadvantage of children with parents on a lower educational level. Exterior influences are not so dependent on social strata, the difference is simply that in the case of children with educated parents the influence of books is greater whereas children of less educated parents are more influenced by magazines and television.

Table 4.

Parents' attitude with regard to choice of school according to their educational level taken together

parents' schooling taken together	parents	
	care about students' choice of career	don't care
17-17 years	91	9
17-12 years	89	11
12-12 years	86	14
12- 9 years	83	17
17- 9 years	82	18
9- 9 years	77	23
12- 6 years	67	33
9- 6 years	72	28
6- 6 years	61	39
total	79	21

Asked about the reference groups influencing school or career choice[5] the pupils' answers followed the order given below:

1. mother	41.9 per cent
2. father	33.3 per cent
3. no influencing group	5.9 per cent
4. friends	5.1 per cent
5. older siblings	4.1 per cent
6. form master	3.7 per cent
7. relatives	2.5 per cent
8. classmates	1.7 per cent
9. adult acquaintances	1.5 per cent
10. teachers	0.3 per cent

(Correlation with choice of school: $p < 0,001$ $C=0,131$)

There is no difference according to sex in the order of reference groups: although the order remains the same, boys are a little more influenced by their fathers, and girls by their mothers. The ratio of those who said that there was no interpersonal influence at all seems remarkably high.

The intention of choosing a school is most influenced by the students' school achievement; the former is a dependent variable, and the latter is considered here as an independent variable. ($p < 0,001$ $C=0,418$)

We must point out here that we speak of the influence on the essentially free intention of choice, and not of the influence on application or admission.

The trend of the choice of school dependent upon school achievement shows that the average marks of girls are much higher (3.68) than the average marks of boys (3.27)[6].

In the knowledge of their achievements per subject and the relative frequency of favourite subjects we could examine the correlation between students' liking a subject and achieving something in that subject. The matching value pairs showed that children achieved better results in the subjects they liked and did less well in the subjects they did not like. The equation of the regression line expressing the trend of general correlation is $y=3,14+0,0496x$. The correlation between the factors is averagely strong: $r=+0,514$.

But when we examined the relation according to the intention of school choice it emerged that the previous character of the connection was the average of extremely divergent correlations. So in the case of students wishing to continue in a grammar school - that is the best pupils - the correlation between liking a subject and the achievement in it was negative ($r= -0,294$) which meant that the less good pupils liked a subject, the better they achieved in it. In the case of students wishing to continue in technical secondary schools - average students - the general tendency asserted itself but less strongly than average ($r= +0,305$). The strongest positive correlation emerged in the case of pupils wishing to go to vocational schools for skilled workers or some vocational training course and in the case of those who did not want to continue their studies.

The findings we have obtained so far are in agreement with everyday experience, that is school achievement is the strongest factor which (in a rather controversial way) decides the tendency of the intention of choosing a school. The next question then is what factors (independent variables) exert their impact on the pupils' school achievement, now taken as a dependent variable?

The type of dwelling place (capital, big town, small town, village) has the least impact on school achievement.

Family structure and parents' age exert a stronger influence than the type of dwelling place but the strongest impact is exerted by the educational level of both parents taken together. Their occupation has a somewhat smaller influence than the level of educatedness just as in the case of school-choice intentions.

When we compared school achievement according to sex and the parents' educational level taken together we found that the difference between the average achievements of boys and girls changed also parallel with the parents' educational level. The average achievement of both sexes was the most balanced in the case of parents who had the highest or the lowest educational level (homogeneously professionals and homogeneously uneducated respectively). With the increased heterogeneity of parents' educational level the achievements of pupils became increasingly different according to sex. The children's achievements in individual subjects changed also with their parents' educational level taken together. We measured the connection with the non-linear correlation coefficient and found that the result ($e_{yx}=0,6941$) showed a marked connection.

The tendency of the changes was the same in all subjects: with the decrease of the parents' joint educational level achievements per subject at first declined sharply, then, with children of averagely educated parents the decrease was slower, and in the social layer where schooling was of the lowest level the decline was sharp again.
The lower the parents' level of schooling, the greater the dispersion in achievements per subject. Compared to the average marks the achievements per subject can be divided into three groups:

a/ achievements in the so-called intellectual subjects; (in decreasing order of their difference from the average: mathematics, physics, Russian language, history, Hungarian language and literature, drawing) the achievements remain below the average throughout, and their dispersion increases a little according to the parents' educational level;

b/ biology remained around the average all the time: by the way, this is by far the most popular subject not requiring any special skill;

c/ in the case of the so-called "skill-subjects" (also in the decreasing order of difference from the average: physical education, practical lessons, singing, drawing) the achievements are well above the average and parallel the educational level of parents their dispersion increases strongly.

The average achievements of pupils decrease according to their parents' educational level also in skill subjects although it is not sure (not likely) if it is i n d e e d the children of the professionals who achieve the best results in gymnastics or practical lessons.

2. CHOICE OF CAREER

In 1982 93.0 per cent of all primary school 7th formers had already chosen a career[7] whereas 7 per cent were still undecided. Boys tended to be a little more irresolute: 7.4 per cent had not yet chosen a career; among girls the ratio was 6.6 per cent.

More than half had no intention of taking up any manual job: in this respect boys were a little less reluctant than girls.

In the last ten years the pattern of resolute career choice has changed considerably. The most characteristic difference between the situation in 1971 and 1982 was that the gap between intentions and possibilities has considerably widened. In 1971 one and a half times more students aspired to become a professional than there were opportunities; these days the number of students wishing to get such jobs is twice bigger than the number of job opportunities. Between the two dates the occupational structure has changed and the proportion of professionals has increased but as the proportion of those wanting some professional job has increased even more, the gap has become wider than before.

The level and direction of the students' career choice are related to the educational level and occupation of their parents. The connection

between the parents' occupation and their children's career choic
fests the intentions of intergenerational mobility.

63 per cent of the children of professional fathers,
cent of the children of professional mothers, and 73.4 pe
of the children from homogeneously professional famili
to choose some professional career. The ratio of those who choo
middle-grade, non-manual job is 17.3, 15.6 and 13.3 per cent in
same order. The proportion of those who wish to be skilled work
9.8, 5.1 and 2.6 per cent. The children of professional families
to take on almost exclusively professional careers but they are a
most undecided: 10.7 per cent have not yet made up their minds.

37 per cent of the children of fathers, mothers and
lies with a non-manual occupation wish to take on so
fessional career; other non-manual jobs were chosen by 34.0, 33
37.0 per cent. 19.8 per cent of the children of fathers in that gr
19.6 per cent of the children of mothers and 15.6 per cent of th
ren of the parents taken together would become skilled workers.
quarters of students with a non-manual family background opted f
some non-manual work and almost one-tenth did not yet know wh

In the case of families where the mother and th
father have some skilled manual job the children ch
mostly the career of skilled worker or some medium-grade non-
occupation, in almost equal proportions. Less than one-fifth tend
some professional career. They are very firm in their choice: o
per cent were hesitant at the time of the survey.

96-97 per cent of the children of unskilled manual w
kers would like to have higher-grade jobs than their parents: o
per cent intend to follow in their steps. The overwhelming major
would like to become skilled workers, one-quarter would take on
middle-grade non-manual job, and every tenth student wanted to
professional.

Compared to 1971 there has been a moderate but character
transformation in the choices of different careers:

- in 1971 6.1 per cent of all students wanted to become en
(agricultural engineers included): in 1982 the ratio was 5.1;
- in 1971 2.2 per cent of all students wanted to become do
in 1982 2.9 per cent,
- in 1971 0.3 per cent wanted to become lawyers, in 1982
times as many: 1.2 per cent,
- 6.3 per cent wanted to become teachers in 1971: in 1982
cent.

The difference between the career wishes of 7th formers -
year-olds - and their chances of realization is threefold in the c
professional jobs.

The proportions are dispersed around the average. 4.9 tim
many students would like to become doctors as possible, 3.4 tin
many children wish to take up liberal arts, sciences, law and ec
as possible: 3.3 times as many students want to become teacher

Table 5

The distribution of students wishing to become professionals according to sex

chosen career	division of students male	female	together	ratio in % of total number
engineer	25	3	11.5	2.91
agricultural eng.	17	3	8.5	2.15
doctor	9	13	11.6	2.93
economist	5	6	5.3	1.34
lawyer	6	4	4.9	1.24
liberal arts	15	13	13.7	3.47
teacher	7	48	32.4	8.19
artist	5	8	7.2	1.82
military officer	10	2	4.6	1.17
other	1	0	0.3	0.08
total	100	100	100.0	25.30

there are chances, 3.1 times as many students wish to have some agricultural job but only 1.2 times as many students want to become engineers as possible. The prestige-differences between the various professional careers exert a strong impact already in primary school, and these effects are reflected also in the changes of their aspirations in the last ten years.

The intentions of career choice clearly reflect the ambition that the children surpass the present status occupied by their parents in the hierarchy of the division of labour.

- 64 per cent of all children have chosen some higher-level career, 29 per cent a career on the same level, and only 7 per cent have chosen a career on a lower level than their parents.

A considerable part of those who have chosen careers on the same or lower level come from professional families because they have only two alternatives: either preserve their level or regress. The main proportions of mobility-ambitions without the children of professionals are the following:

- 69 per cent would like to achieve a higher level; 47 per cent one grade higher, 18 per cent two grades higher, 4 per cent three grades higher;
- 25 per cent have chosen a career on the same level;
- 6 per cent have chosen a career one-grade lower.

Hence according to the present intentions of intergenerational mobility 93 per cent of all families wish that their children preserve at least the level they have achieved. Three quarters of those families who, in principle, have no possibility of upward-mobility wish to realize this

possibility. In non-professional families the intention of mobility is characteristically to move one level upward, that is three quarters of the families wish their children to have a career one-grade higher than their own.

Intergenerational mobility trends are stratum-specific, as demonstrated in the following matrix. The individual mobility indexes express that, compared to their parents' career level, to what extent and in what direction their children want to differ by their career choice. The index of level-preservation is 0,000, the sign + means upward-mobility intentions.

occupational level of one parent	occupational level of the other parent: prof.	non-manual	skilled manual	unskilled manual
professional	-0,207	-0.015	+0,322	+0.727
non-manual		+0.228	+0,400	+0.880
skilled manual			+0,763	+1.113
unskilled manual				+1.400

The indexes show clearly that the children of professional families in the first place tend to preserve their status, and the children of manual workers tend to step upwards in the hierarchy of occupations: the lower they are, the more they want to climb up.

The analysis of the intention of school choice showed that the strongest "exterior" factor was school achievement. The same applies to career choice. This intention is almost as closely linked to school achievement ($p < 0,001$ $C=0,401$) as school choice ($p < 0.001$ $C=0.418$). School achievement has a selective impact not only on the level of career but also on the type of career itself.

Students who wish to take on professional careers attain the average mark 4.24. Within this, the following table shows the "hierarchy" of careers in the decreasing order of school achievement:

career	average marks: male students	female students	together
medical	4.38(1)	4.43(1)	4.41(1)
law	4.30(2)	4.43(2)	4.35(2)
liberal arts, science	4.17(4)	4.39(3)	4.30(3)
teaching	4.12(5)	4.31(6)	4.29(4)
engineer	4.24(3)	4.38(4)	4.26(5)
agricultural engineer	4.10(6)	4.38(5)	4.16(6)
economist	3.90(7)	4.25(7)	4.13(7)
artist	3.74(8)	4.21(8)	4.07(8)
military	3.51(9)	3.55(9)	3.52(9)

School achievement results in almost the same hierarchic order of careers in the case of both sexes. The best students want to become doctors and lawyers, then come engineers and liberal arts. Teaching and agrarian jobs are in the middle. In the last group of careers again there is no difference according to sex in the order of economist, artist and military careers. This order can be considered also a kind of prestige-order of professional careers.

On the basis of the characteristic features of career choices determined by school achievement we distinguished the following general and stratum-specific career attitudes:

a/ the choice of the level of students' future career is basically and primarily determined by their average school achievement;

b/ the best students choose intellectual careers; given the fact that girls are in general better students it is reasonable that they want to become professionals in greater proportions;

c/ within the various professional careers there is a linear correlation between the social status of careers and the school achievement of candidates - this applies to both sexes. Besides this interest parallel with the career choice plays an adequate role, consequently career choices can be considered conscious;

d/ given the fact that school achievement and students' family background are closely related, high-prestige professional careers are chosen primarily by children from honogeneously and heterogeneously professional families, less prestigious professional careers are chosen by children from the same group of families but with lower school achievements and by children from homogeneously and heterogeneously non-manual workers' families;

e/ middle-grade careers are chosen by average students. These children are more homogeneous in their school achievements (the dispersion per sex is smaller) and there is no clear relation between career and school achievement. So here interest and attitude to the given career play a greater role in the choice, naturally also according to sex;

f/ students with lower than average school marks will become skilled and office workers. Although the range of opportunities is broad in principle, their career choice is narrow and one-sided. It seems that in their case the choice is not too well-founded and less conscious. Most of them are influenced by two factors: their narrow range of knowledge coming from their close environment and the wish to have some "well-paying" trade[8].

The relations between school choice and career choice

We mentioned in the introduction that - exploiting the opportunity offered by the survey - we'd try to clarify that much-discussed question whether primary school students actually chose a school or a career?

We compared students' school choice intentions with their career choice intentions and found a close correlation between the two.
($p < 0,001$ $C=0,504$)

The students' choice of school showed consistency and consciousness from the viewpoint of the desired career. Almost three quarters of all students (73 per cent) chose a type of school which corresponded to their chosen career.

The ratios of school choices concerning professional careers showed clearly that students, also considering their school achievements, opted for a type of school which offered a realistic possibility for achieving the desired career; within this they chose secondary vocational schools to an extent which still enabled them to follow their choice.

Chapter one dealt with the choice of school, chapter two with the connection between career choice and influencing factors including the connection between the choice of school and the choice of career. We examined the degree of these correlations with the chi square test, and expressed their values with contingency coefficients (C). Table 6. offers a summary of the findings of independence tests. The procedure applied by us made it possible to grade the connections between the pairs on the basis of C values. This classification permits to sketch a theoretical model which may be suitable for rendering the very complex system of factors influencing school - and career choice. As a matter of course such a model can reflect reality only with gross simplifications but it may enable us to select the dominant factors which determine the process. If we know the dominant factors and their impact we may be able to determine our tasks in vocational guidance more objectively, also taking into consideration the contradictions revealed by the survey.

The theoretical model of the system of factors influencing school - and career choice is shown in figure I.

On the basis of this model and our analyses so far the effect mechanism of career - and school choice can be summed up as follows:

1. The choice of school and the choice of career are two separate but closely linked, interrelated processes. Considering that there is no exclusive, strictly determined way of attaining a career, the choice of school is the result of the consideration of the alternatives enabling the realization of the career goal.
2. This also means that the two relatively autonomous processes (the choice of school and career) happen at the same time and influence each other so that career choice plays the role of "primus inter pares". In other words, replying also to the question raised by the survey: both a career and a school are chosen, jointly, at the same time, iteratively, but generally the first determines the second.
3. The choice of school and the choice of career - or to be precise, the choice of the type (or level) of career and the choice of the type of school are determined by the family's social status: the objective is to surpass the parents' (family's) educational and occupational level mostly by one grade, or at least to preserve it.
4. The type and level of career and the type and level of school necessary for its attainment are chosen on the basis of the family's educational and occupational level but at the same time this choice is influenced by the child's school achievement. The higher the school achieve-

ment is the better chances there are for choosing a high-prestige career - in principle irrespectively of the family's social status. But since there is a significant, although non-functional connection between the family's social status and the child's school achievement, the realistic career objective is generally to attain a career one level higher or at least to preserve the parents' level; in individual cases of course one might be compelled to accept a lower career level.

5. In the process of socialisation within the family school achievement functions as a tool, as a means: this is the consequence of the acceptance of the contra-selective mechanism determining the choice of career and school. However, in the socialization process within the school it functions as a goal. By this we mean that most families encourage their children to learn better because the better their school achievement is, the more realistic the attainment of their goal becomes: thus it becomes the means of achieving the goal which is mobility. However, the school and individual teachers are interested in the general improvement of school achievement because the statistical standard of value is achievement in general and per subject. In this way it becomes a direct objective. This duality is one of the reasons why schools cannot do practically anything to alleviate the stratum-specificity of career choice, on the contrary, it seems to strengthen it. It is primarily school structure and not school education that enables the majority of students to wish to transcend the status of their parents in the social division of labour.

Some conclusions

The intentions of primary school students in choosing a school and a career manifest that general need of social mobility that the rising generation attain a higher educational level and occupational status than their predecessors. Vertical, upwards-directed intergenerational mobility ambition is present in every social stratum differentiated according to their existing status. Most families with professional jobs wish to preserve for their children the status already attained, and the other social strata tend to surpass the existing level (the lower their grade in the hierarchy, the more they wish to surpass it).

By now there is more or less a balance between the economy's need for skilled (qualified) labour. This nearly global balance could be achieved because in the past decades secondary schooling has gradually become general. The social and economic transformations in the country have provided plenty of opportunities for both inter- and intragenerational mobility. The possibility of occupational and educational mobility agreed with the socio-political objectives of the country and coincided with the general need.

In view of the fact that the educational level of the population including the parents of teen-age children has become higher, future educational and career choice demands have grown faster than the possibilities offered by the school-system and school-structure. Due to this fact the gap between intentions and possibilities has increased. If the

Table 6.

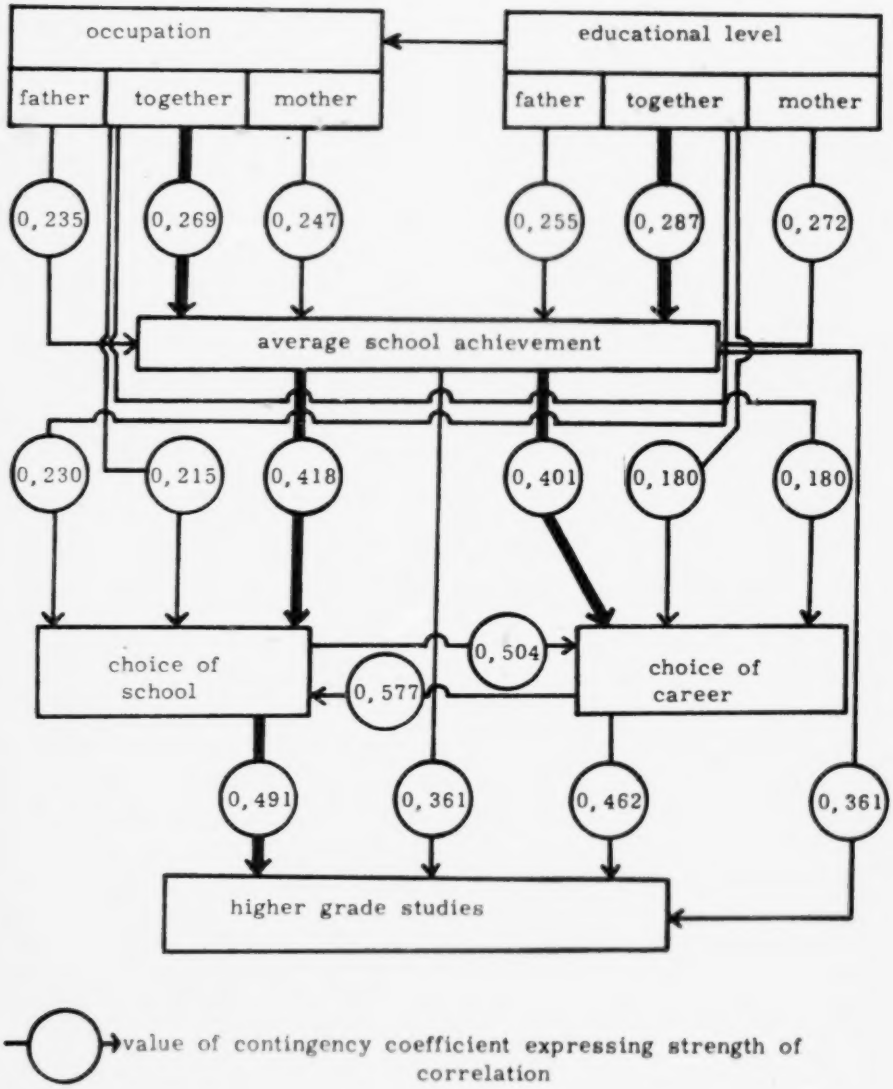
Result of independence examination (chi square) and index number of correlation strength (contingency-coefficient)

independent variable	dependent variable					
	choice of school		choice of career		average achievement	
	p	C	p	C	p	C
type of settlement	0,001	0,162	0,001	0,192	0,001	0,059
subject speciality	0,001	0,100	0,001	0,136	0,001	0,092
district of sch.	0,001	0,095	0,001	0,141	0,001	0,059
family conditions	0,001	0,055	0	0	0,001	0,112
father's schooling level	0,001	0,205	0,001	0,174	0,001	0,255
mother's schooling level	0,001	0,213	0,001	0,177	0,001	0,272
parents' schooling level	0,001	0,230	0,001	0,180	0,001	0,287
father's occupation	0,001	0,194	0,001	0,172	0,001	0,235
mother's occupation	0,001	0,198	0,001	0,170	0,001	0,247
parents' occupation	0,001	0,215	0,001	0,180	0,001	0,269
father's age	0,001	0,063	0,001	0,095	0,001	0,114
mother's age	0,001	0,077	0,001	0,095	0,001	0,117
parents' opinion	0,001	0,250	0,001	0,176	-	-
talks on choice	0,001	0,131	0,001	0,113	-	-
career choice	0,001	0,577	-	-	-	-
influence on choice	0,001	0,095	-	-	-	-
favour. subject	0,001	0,157	0,001	0,202	-	-
average marks	0,001	0,418	0,001	0,401	-	-
higher school contd.	0,001	0,491	0,001	0,462	0,001	0,361
first school choice	-	-	0,001	0,504	-	-
second school ch.	-	-	0,001	0,318	-	-

marks: p: level of significance
C: value of contingency coefficient
o: no correlation
-: not examined

Figure I

Connections between the factors influencing the choice of school and career of primary school students



value of contingency coefficient expressing strength of correlation

pattern and the extent of higher and secondary educational possibilities could not change considerably, this gap would widen in future.

The position of the political leadership concerning the further development of education lays down - among others things - the increase of the ratio of secondary schools giving a certificate of final examination, and with them, the increase of grammar schools. This decision coincides with the demand of the society. The successive modification of proportions within the secondary school structure, along with the consideration of the demands of the population concerning the development of the extent and proportions within the higher education - if coordinated with the economic needs - could promote the future harmony of intentions and needs. A relatively slight increase of the proportion of grammar schools meets the population's requirements and improves the base of higher education. When increasing the ratio of technical secondary schools one must take into consideration that this type of school, along with vocational training schools are chosen by the overwhelming majority of students in order to get some middle-grade, non-manual job. This, however, will be achieved only by a small ratio of the candidates and students who get into these schools.

A certain divergence between intentions and possibilities in school and career choice will subsist even if they are nearer to each other than they are now: needs will always precede possibilities. On this account vocational guidance should assume the responsibility to make candidates and their families conscious of the fact that choice implies risk and one must take this risk. The degree of the risk depends upon the chances of realising the choice: today the risk is smaller for those who know the conditions required for the realisation of their chosen career and who possess these conditions, which are the following:

- knowledge of the path (school) leading to the career;
- attainment of the necessary school achievement for getting into the required schools;
- knowledge of the chosen career's effective requirements and one's own personality;
- direct help (family and school) and indirect help for getting to know the conditions and attaining them.

The more complete the possession of these conditions is, the better and founded and the more objective the career choice will be. In our analysis we have seen that the existence or absence of of these conditions depended upon the parents' social status. The children of educated parents are in a more advantageous position than the children of less educated parents. The children of parents with a lower educational level and especially those who live in broken homes or without parents do not to the same extent possess those direct environmental conditions that are required for a well-founded career choice ensuring their social rise. So these children are in the greatest need of help from the school, from their form-master and their teachers.

The latest government measures concerning vocational guidance put more emphasis on the role and responsibility of the school. However, the school will be able to fulfil its task and cope with its increased responsibility only if it can alleviate the social and family disadvantages of underprivileged children more resolutely and more effectively. Without going into details we try to sum up here the tasks of the school in preparing students for their career choice in the near future:

1. Making students ready to assume the responsibility for choosing a career and for shaping their own personal future, and making them conscious of accepting the risks it entails. We have seen that most 13-14 year-olds considered that the choice of school and career was their own personal choice, that is they were ready to play a role in the decision. The form-master should acquaint himself with the intentions of students and encourage those who are still undecided to work out a conception of their own future. Support and help to individual students must depend upon their own conceptions. In the case of those who have a firm plan, one must weigh whether their conception is realistic, and depending upon this it should be confirmed or modified. In the case of students with several possible plans the teacher can help in determining their order of priority. Those who have no ideas at all should be offered possibilities and thus started on the process of choosing. The ultimate goal is that every student should have several firm and graded conceptions.

2. The progress and consolidation of the intention of career choice is the result of a long process of consideration. As we have seen, by the second half-term of the 7th form the overwhelming majority of students had had some conception but the school's role in their formation was relatively small. This confirms the general experience that choosing a career (or rather a school) is intensely discussed only in the 8th form, just before students have to decide about the continuation of their studies. The role and influence of teachers in this respect can improve in efficacity only if the topic is dealt with regularly from the 5th form onwards.

3. The pattern and direction of career and school-choice intentions are closely linked with school achievement. This phenomenon is the reflection of the general practice according to which school candidates are selected among the different types of schools and specialities, both on secondary and higher level, on the basis of their school achievement.

This outstanding role of school achievement in the choice of school and career requires changes in several aspects:

- firstly, marks should measure the effective achievement more than they do it now;
- secondly, in secondary and higher-grade vocational training conditions of admission should be gradually complemented with criteria based on ability tests whose value should be equal to school achievement;
- thirdly, in primary and secondary education it should be made possible that students - individually or in small groups - could catch up in certain subjects;

- fourthly, teachers' conferences deciding marks at the end of should be abolished or some other methods should be found in order to put an end to the artificial "adjustment" of average achievement and in this way to increase the unbiased objectivity of individual marks.

4. The increasing proportion of secondary schools giving certificates of final examination enables more and more students to ripen, modify and change their career concepts. In this way the moment of final decision will come later for more and more students and the preparation for their future career will continue in secondary school. This creates new tasks and new possibilities for vocational guidance. In the near future new methods of vocational guidance will have to be elaborated on the basis of the experience orientation and optional teaching in grammar schools. These methods should be adaptable to age and a given situation and should be built into the process of teaching.

5. To develop the preparation for career choice within the framework of education and teaching at school it is required to give many-sided support to schools and teachers. The primary task of the institutions of vocational guidance should be professional help to form-masters and others who are in charge of vocational guidance in primary and secondary schools. They should provide teachers with methodological material, information about jobs and professions, information about national and regional economic needs and they should organize courses in and other special training courses.

6. Even the best and most competent teacher cannot make up for the knowledge, influences and experiences that students can get hold of only in real life. Work-places are the most suited for conveying an idea of the working world, and acquaint students with the requirements of jobs and professions. Hence schools should be open towards work-places and request and exploit all possibilities offered by visits to factories, study circles and holiday work.

3. EXAMINATION OF THE MOTIVES OF CAREER CHOICE

The motivations playing a role in career choice were examined as part of the survey conducted among primary school 7th formers about their intentions of choosing a secondary school.

This supplementary investigation was considered necessary in the first place because it enabled us to get to know the motives which played the most decisive role in the formation of school and career choice conceptions in the early 80s.

When we planned this survey about the intentions of school choice, we assumed, on the basis of previous experience, that social stratification could be expected to be responsible for considerable differences in both school- and career choices.

We wanted to get to know, as far as possible, the particularities of people's consciousness and the system of values which played a role in the motivations of primary school students when they chose a career.

We are convinced that one of the possible methods of influencing the decision of career choice consists in shaping the needs, motivations and values which play a role in career choice[9].

We believe that one of the major tasks of vocational guidance and help in decision-making is orientating the system of motivations into a socially and pedagogically desirable direction. The formation of motivations, value-orientations and needs is an especially important educational task in view of reducing the social inequalities of chances perceptible also in career choice. An important condition of this educational work is the knowledge of the content and structure of the motives playing a role in career choice because in possession of this information it will become easier and more deliberate to plan the complex process of shaping the basis of the motivational and value system of individuals.

We conducted our research with these objectives in view and tried to answer the following questions:

1. What are the changes in the career motivations of primary school students compared to the early 1960s?
2. How does the social stratification of the parents reflect itself in the students' motivational system influencing their career choice?
3. What are the connections between the students' school performance, their school achievement and the motivation-structure of their career choice?

Comparative examination of the motives of career choice

We believed that the investigation of the motives playing a role in career choice will teach us what motives, reasons and values are dominant in the career conceptions of today's 13-14 year-olds.

The reason for putting the question in this form was that in the past twenty years there have been major economic and social changes and they have influenced the intentions of career choice as well as the needs and the motives which played a role in their transformation.

The second reason for repeating the survey was to find out how the changes in the past two decades have changed the structure and motivational hierarchy of career choice. In other words: we wanted to know whether the far-reaching social and economic changes of the sixties and seventies were reflected in the motivational system of career choice?

This formulation of the question implies the assumption that the changes in economic processes, in the occupational and social structure, and last but not least in the living standards and in the style of life are closely related to the whole process of career choice and within this, to subjective factors such as the motives, needs and values playing a role in career choice.

The experience gained from the day-to-day practice of vocational guidance indicates that the interior content of these factors has changed

considerably under the impact of the above mentioned social and economic changes. In our survey we aimed at confirming and checking over our intuitive experience of the changes in consciousness and value systems by the aid of systematically arranged factual material.

On formulating the hypotheses of our comparative examination we outlined very roughly those processes of change and tendencies which were relatively closely related to the system of social and economic conditions which determined career choice directly or indirectly.

The major change in respect to career choice was the sudden increase of the educational level among the less than 40 year-old population. Along with this change, the value and prestige of higher culture and education and qualified jobs have increased considerably.

As a consequence of technological development the number of jobs requiring better qualified manpower has grown but the growth rate of the economy in this field is slower than the increase of the demands of the society.

On the basis of higher educational levels, higher cultural demands and the changes in the content and requirements of work we assumed that compared to twenty years ago the importance of self-realization, creativity and the satisfaction of intellectual needs have greatly increased within the motivational system of career choice. Since the previous survey in the early 70s living standards have increased considerably and people's consumption habits have changed rapidly. Demand for durable consumer goods, travels abroad and better housing conditions have gradually emerged. Despite the rapid rise of the prices of apartments the demand for an own flat with every modern convenience has increased in every social stratum.

On the basis of these needs we supposed that material considerations in career choice have significantly grown in importance.

We thought it likely that material considerations were not equally important for all social strata. The parents' material standards and the degree to which material needs were satisfied acted as an important differentiating factor in material considerations concerning career choice. On the basis of our previous experience we supposed that the educational and cultural level of parents was an even more important differentiating factor than the degree of satisfaction of material needs. One could assume that the children of highly educated parents, regardless of their material conditions, gave less preference to material factors in their career choice than the children coming from less educated families - the former would probably attribute more importance to other factors, e.g. creativity, intellectual activity, sociability.

The changes in educational level, in social and occupational structure and the progress in most components of living standards have considerably changed people's way of life. This transformation, however, did not happen in an identical way and to the same degree in every social stratum. The relatively balanced progress in living standards was in every social stratum followed by a clearly positive change of value systems concerning people's style of life. The differences are especially conspicuous in the attainment and acquisition of culture.

Table 7.

The 10 most and the 5 least important motives in the career choice of male students[o]

1961	1981
1. offers good chances for earning /3/	1. good working conditions /13/
2. light physical work /34/	2. ensures a healthy way of life /33/
3. clean work /10/	3. offers good chances for earning /3/
4. socially appreciated career /6/	4. I can become a recognized and esteemed person /19/
5. offers a chance for innovation and invention /19/	5. I can help others /15/
6. requires meticulous work /33/	6. socially appreciated career /4/
7. after a short while I can earn money /8/	7. I like the work environment /11/
8. This is the parents' wish /45/	8. after a short while I can earn money /7/
9. one can realize one's individal conceptions /11/	9. it offers the chance for doing sports /20/
10. it offers the possibility of independent creative work /26/	10. clean work /3/
52. it offers insight into the past /42/	50. it requires to work with figures /27/
53. it is a tradition in our family /54/	51. one's knowledge of languages can be used /31/
54. it offers the chance for organising /29/	52. offers the possibility of artistic work /45/
55. you can do things in style /47/	53. requires a sedentary way of life /29/
56. ensures tips, extra money /41/	54. it is a family tradition with us /53/

o The numbers in brackets indicate the changes in their order: the numbers after the order of 1961 indicate the positions of 1981 and vice versa.

Table 8.

The 10 most and the 5 least important motives in the career choices of female students

1961	1981
1. clean work /4/	1. good working conditions /6/
2. physically light /24/	2. ensures a healthy way of life /47/
3. offers good chances for earning /8/	3. I can become a recognized, appreciated person /31/
4. one can dress well /29/	4. clean work /1/
5. socially appreciated career /7/	5. I like the work environment /9/
6. good working conditions /1/	6. one can help others /14/
7. one can meet many people /10/	7. socially appreciated career /5/
8. I can earn money after a short time /11/	8. offers good chances for earning /3/
9. I like the work environment /5/	9. one has to cooperate with others
10. this is the parents' wish /50/	10. one can meet many people /7/
52. one can do organising work /26/	50. this is the parents's wish /10/
53. serves the country's security /16/	51. you can do things in style /55/
54. it's a tradition in our family /54/	52. ensures tips, extra money /56/
55. you can do things in style /51/	53. may bring some little courting /43/
56. ensures tips, extra money /52/	54. it's a tradition in our family /54/

In view of this we assumed that the needs concerning profound study, aesthetical values or sociability were given an inferior placement compared to material motives. At the same time we thought that such elements as way of life, sport, health and better working conditions would increase in value. We believed that better living conditions, the broader awareness of the importance of a healthy way of life have increased the demand for more comfortable work, better working conditions and the rejection of the physical burden of work. We also thought that leisure, sport and entertainment have grown in value.

By analysing the placing of individual motives and the changes of their position we tried to give and answer to the question concerning the changes in the hierarchy of motives.

Table 7 and 8 show the 10 most and the 5 least important motives as considered by male and female students.

The comparison of the most important motives now and twenty years ago in tables 7 and 8 shows that both boys and girls give priority to good working conditions. In 1961 this motive was 13th with the boys, and 6th with the girls in order of importance.

The importance of the motive "healthy way of life" has grown considerably: twenty years ago it had been 33rd with the boys and 47th with the girls but in the survey of 1981 it was the second most important motive in both groups.

The importance of working conditions not injurious to health is greater than the importance of material factors.

The rearrangement of motives and values is linked with the fact that with the satisfaction of basic material needs the importance of preserving health and doing work which is not too a great physical burden increases and tends to become a dominant value. With the expected improvement of society's material conditions this tendency will continue to assert itself, and even increase, in future. This is a warning that in jobs where working conditions are unfavourable and harmful to health the shortage of manpower reserve and actual manpower will increase. In the elimination of the ensuing tensions the improvement of working conditions will play a greater role than financial compensation.

Although boys continue to attribute great importance to good earning possibilities, this does not contradict the foregoing statements. With girls this motive has somewhat decreased in importance but it is still among the first ten motives, the 8th actually.

Among the material motives the possibility to earn money soon still has a high value although both with boys and girls it is somewhat lower in the hierarchy of motives. However, on the basis of our previous experience concerning the increase of social demands for education we expected that the importance of this motive would decrease to a greater degree.

Data in this respect indicate that the slowing down of the growth rate in living standards and the unchanged growth rate of consumer demands make themselves strongly perceptible. This does not mean the regression of demands for longer schooling but signals that under the present conditions of the evolution of living standards making money as

early as possible is also a major factor in young people's career choice. These two demands - access to a higher educational level and at the same time earning money soon - shape the students' conceptions about career choice together, often in a contradictory manner.

The value of social prestige attainable through one's career has gained considerable importance in both groups but especially in the group of girls. Being appreciated and recognized had been 19th with the boys and 31st with the girls: now their position numbers were 4 and 3, respectively. The judgement about the career's social prestige has also grown in value in the case of both groups.

This indicates on the one hand that the social prestige offered by a career has become an important motive in career choice, but on the other hand this fact warns us that we must count on further decrease of the flux towards low-prestige careers and jobs.

One of the positive features of the change in the motivational system of career choice is that, contrary to preliminary hypotheses, the motives connected with sociability and helping others have grown in importance. In 1961 the motive "on can help others" was 15th with the boys and 14th with the girls: in 1981 the boys put it on the 5th, the girls on the 6th place. The two other motives connected with sociability have also become more important: "one can concern oneself with the problems and troubles of others" was 43rd with boys and is now 37th; with girls it was 26th and is now 25th. The strengthening of another typically positive motive of sociability is even more important: "we can give something from ourselves to others" was 46th with boys and is now 21st; with girls it was 36th and is now 16th.

The increased importance of sociability in career choice is significant from several viewpoints. On the one hand this tendency contradicts the conception of an important part of public opinion according to which young people and especially adolescents are callous and indifferent to problems of other people and the community. On the other hand it signals the influence of that world-wide phenomenon according to which the human sphere, the wish to solve human problems gains increased importance in the value-system of the youth, and this influences their considerations about the content of their career choice. The concrete manifestation of this is the considerable increase of interest in humanities to the detriment of technical careers.

Table 7 shows that the importance of the motive of innovation and invention that is creativity has decreased among the motives of boys as well as the importance of the realisation of original concepts. The same tendency prevails in the group of girls. This is remarkable because it contradicts the characteristics of the age group in question since this period is characterized, especially in the case of boys, by the strong desire and demand for creativity.

In our summary of the hypotheses concerning the rearrangement of motives we have mentioned that the changes in technological progress and in the content of work exert their impact also by increasing the interest in careers ensuring creative work and demanding higher intellectual qualifications, i.e. the motives linked with creation and the intellectual elements of a career gain more importance.

The findings in the survey disprove this preliminary assumption. One of the main reasons for the decrease in the importance of motives linked with creation and intellectual elements in a career is that everyday thinking gives a very narrow interpretation of creativity which, in general opinion, is only a concomitant of intellectual work in the classical sense. The opportunities of creative work in manual jobs are less known, just as the changes in the intellectual requirements of some manual jobs remain hidden to ordinary thinking. This unawareness of creative opportunities and of increased intellectual requirements is transmitted to the youth and thus creativity and intellectual elements are not integrated into the system of demands of young people and so they will not become dominant motives in their career choice.

This calls our attention to the requirement of shaping the contents of educational activity including vocational orientation more deliberately and purposefully in the entire educational and teaching process of primary schools. For the sake of making creative thinking a general demand we must increase, both in the content and methods of teaching and education, the quantity of conceptual and methodical elements which develop the children's demands for creative activity.

In the course of vocational orientation at school much more emphasis should be put on the creative character of jobs and careers, the intellectual elements of manual jobs and the fact that creative thinking in work is becoming more and more a general requirement.

One of the major changes in the motivational system of career choice is the considerable decrease of the importance of the motive of parental influence. In 1981 this motive was 8th with boys and 10th with girls in order of importance but in 1981 it regressed to the 45th and 50th place respectively. The decreased importance of parental influence is demonstrated also by the fact that following family tradition as a motive is placed last, 54th, in both groups.

The data showing the decrease of parental influence are in accordance with the findings of the survey on school choice intentions according to which only a little more than 10% of the answers indicated that parents had made the decision for their children.

This means that students' autonomy in career decision has grown considerably in the last two decades. These figures contradict the experience of vocational orientation because according to both teachers and experts in vocational guidance the parents have a determinant role in the career choice of their children. The sharpest formulation of this opinion is "today it is not the the child who chooses a career the parent".

The contradiction between the findings in the survey and practical experience can be explained with the changes in the style of upbringing in families, that is due to the fact that parents have become much more liberal in their attitudes, they tend to be more open to their children's career intentions. This manifests itself primarily in the gradual decline of their directly determinant role.

However, the indirect influence of the parents through the mechanism of family socialisation has not decreased. Parents exert the

strongest influence on their children's career choice through transmitting their own values and norms to their children. This is supported by the findings of the analysis concerning the relation of the motivational system and the parents' social stratification.

EXAMINATION OF THE CONNECTION BETWEEN THE MOTIVATIONAL SYSTEM AND SOCIAL STRATIFICATION

Sociological research in Hungary started to investigate the causes of social inequality of chances in the second half of the 60s.

These investigations showed a close connection between the place occupied by the parents in the social structure and the intergenerational mobility chances of their children.

The findings showed that the level of knowledge required in the career chosen by the child, the type of school to be chosen and the value of the social status attainable by that career depended strongly upon the educational level of the parents and the type of their jobs. The investigations revealed that the place occupied by the parents in the social structure did not exert its impact directly on their children's school achievement and chances of career choices but asserted itself indirectly, through different transmission mechanisms - income and housing conditions, educational and cultural conditions and, last but not least, through the specific system of values typical of a particular social stratum.

One of the important findings of these investigations was that besides the objective intermediate elements of sociological determinants, "a more favourable (unfavourable) social situation from the viewpoint of developing one's personal qualities is linked most directly with the effects of the value systems evolved on the basis of objective conditions and subjective formations and mechanisms in people's consciousness." (Gazsó, 1971) The examination of the value orientation of students right before choosing career resulted in drawing similar conclusions. "Objective sociological facts are far from determining automatically and directly the motives and aspirations of career choice and the prospective orientation manifested in that choice. Between sociological factors and the spheres of subjective career orientation there are specific psychic formations and mechanisms such as ideals concerning career and way of life, some elements of social value consciousness, attitudes, demands fixed on various levels, customs and traditional values." (Pataki, 1978) Particularly important are the findings which prove with the help of ample empirical material that the school achievements, chances of further study and career intentions of children in the different social groups are not favourable or unfavourable because the abilities and qualities of the children of different social groups are better or worse but because there is a considerable difference in the hierarchy of values of different ways of life, human activities and products and also in the evaluation of the needs and demands which should be satisfied by work; and finally, social groups differ enormously in the content of their value concepts concerning the child's future life and career.

In the survey we considered the motivational system having and impact on career choice as the objectivated form of the system of needs determined by the system of values of the individual. In our interpreta-

tion the motivational system of career choice is a particular form of the manifestation of the individual's system of values which, as systems of value in general, developed during the process of socialisation.

We are aware of the fact that value system and motivational system are not identical because the system of needs expressed in the motivational system does not only manifest the person's value system but also other components of personality such as temperament, aptitude and inclination. Hence we consider the motivational system playing a role in career choice as the manifestation of the special system of needs evolved from the value system developed during socialisation and the dynamic characteristics of the individual.

Hence career choice motives are "subjective formations of consciousness" grown out of values and personal needs on the basis of individual qualities which play a decisive role in the process of selection preceding the decision of career choice leading finally to finding a career which satisfies the demands and inward ambitions of the individual.

If we accept that the motivational system influencing career choice is the result of the process of socialisation, it follows that the differences experienced in the motivational system as well as in the values can also be explained with the different conditions of socialisation. Investigations about the process of socialisation show that the different conditions of socialisation stem primarily from the differences in family norms, values and ways of life, and also from differences in material conditions. These differences are related to the educational level within the family, to the parents' place in the division of labour, i.e. to the hard sociological variables resulting in social stratification.

On the basis of these interrelations we assumed that there were significant differences in the motivational system of different social strata with regard to career choice, i.e. that the children of different social groups in their career choice try to satisfy different needs built on different values.

According to our interpretation the process of career choice is a selective activity satisfying special needs. Before making their decisions about choosing a career, young people conduct an activity of selection. The level of consciousness of this activity depends upon the maturity of the person in question - primarily upon his/her knowledge about the career and his/her self-consciousness, and the dispersion in this respect is great per individual. We consider this activity of selecting also an activity of satisfying needs because the selection is made on the basis of the hierarchy of needs expressed in the motivational system of career choice. It is very likely that outstanding attention will be paid to those types of careers and jobs which satisfy the dominant needs manifested in the motivational system. According to this approach career choice is satisfaction of needs, search for a system of activity which offers subjectively the best chances for the best possible way of satisfaction of needs concerning work.

The interpretation of the process of career choice as a function of satisfying needs can bring us in a certain sense nearer to understanding the socialisation mechanisms resulting in the dependence of career choice

intentions upon social status. It helps to explore the process which results in some characteristic career ambitions of this or that social group. The different conditions of socialisation influence career intentions through the system of values and its complex interaction with the motivational system.

As a consequence of socialisation characteristic stratum-specific motive "profiles", hierarchies of needs are established and the conceptions and career plans are formulated so as to fill these needs. The concretisation of these plans depend upon the candidates' maturity though. The differences characterizing the career choice conceptions of different social strata can be seized in the level of knowledge required for practising the chosen career and in the intellectual or manual nature of the activity required by that career.

Findings pointing to the connection between motivational system and social stratification

In course of the survey we used complex mathematical analysis to investigate whether there are any characteristic differences in the motivational systems of students belonging to different groups that were formed according to the place occupied by the parents in the social hierarchy. The analyses showed unambiguously that there were significant differences in the career motivations of students according to both the parents' educational level and their place in the division of labour.

We analysed the extent of similarity between the motivational systems of individual groups with homogeneity examination based on variance-analysis so that we established a so-called index of homogeneity on the strength of the comparison of the groups formed according to the parents' educational level and occupation. This index of homogeneity expressed the similarity or difference between the motivational systems of students belonging to the compared groups. The decrease of the absolute number of the index expressed the difference between the motivational systems of the groups.

The examination of homogeneity with a view to comparing the motivational structures of groups according to parents' educational level brought the following results:

secondary grade - 8 grades of primary school:	12.0
8 grades of primary school - less than 8 grades:	6.75
secondary - less than 8 primary school grades:	5.75
higher grade - 8 primary school grades:	5.0
higher grade - secondary grade:	4.0
higher grade - less than 8 primary school grades:	3.5

The established index shows that the greatest similarity appears in the motivational system of students of parents with secondary and primary school educational level. The difference is greatest between the two extreme groups, i.e. between the motives of children of parents with higher education and parents with fewer than 8 primary school grades. To a certain extent we were surprised that the difference was almost as

big in the case of the children of parents with higher and secondary education.

The result of the comparison of motives according to the parents' occupation brought the following order:

secondary grade white collar worker - skilled worker	10.5
secondary grade white collar worker - housewife	10.0
skilled worker - unskilled worker	9.0
unskilled worker - housewife	9.0
secondary grade white collar worker - unskilled hand	8.5
skilled worker - semiskilled worker	8.0
skilled worker - housewife	7.5
secondary grade white collar - semiskilled worker	7.0
semiskilled worker - housewife	6.5
semiskilled worker - unskilled worker	5.25
professional - housewife	4.5
professional - skilled worker	4.5
professional - secondary white-collar	4.25
professional - unskilled worker	4.25
professional - semiskilled worker	2.75

The indexes show that the greatest homogeneity appears in the motivational structure of the children of secondary grade white collar workers, that is homogeny managers, administrators and specialized employees, and the children of skilled workers.

The strength of homogeneity is almost the same in the case of the children of secondary grade brainworker mothers and housewifes. The difference is the strongest between the motives of the children of professionals and the children of semi-skilled workers. The difference in motivation is somewhat less between the children of professionals and the children of unskilled and agricultural manual workers. The difference in the motivational structure is relatively great between the children of professional and secondary-grade white collar workers, and also between the children of professional and skilled workers. The difference is the same in the case of the children of mothers with a professional job and housewives.

In the next phase of the analysis we tried to determine which spheres of needs[11] showed strong heterogeneity according to social status, i.e. which needs were most influenced by the parents' place in the social hierarchy. The empirical confirmation of dependence upon social stratum was established on the basis of the increasing or decreasing tendency of the values of individual spheres of need according to social stratum.

Table 9 and 10 show the spheres of need considered dependent upon social stratum according to the educational level of fathers and mothers.

The data in the tables show that the educational level influences the value of individual spheres of needs.

Table 9

Spheres of needs and their values of importance depending upon social stratum according to the fathers' educational level

Stratum-dependent spheres of need	values of father's university, college	importance secondary school	according to educational level 8 gr. primary	less than 8 gr. primary
	MALE STUDENTS			
material resources	4,475	4,951	5,298	5,339
creative work	5,050	4,620	4,443	4,277
freedom	4,794	4,205	4,089	4,054
aesthetic demands	4,331	4,146	3,802	3,777
intellectual passivity	2,431	3,224	3,555	3,973
leading role	3,081	3,195	3,291	3,679
convenience, comfort	2,894	3,146	3,179	3,500
external influences	2,331	2,356	2,600	3,393
	FEMALE STUDENTS			
sociability	5,505	5,481	4,806	4,562
aesthetic demands	5,279	5,075	4,817	4,719
material resources	3,591	4,168	4,310	4,656
creative work	4,558	4,173	3,973	3,792
freedom	4,325	3,921	3,664	3,552
convenience, comfort	2,948	3,238	3,461	3,865
enjoyment	2,831	2,967	3,120	3,427
intellectual passivity	2,312	2,575	3,098	4,094
external influences	1,584	1,864	1,964	2,823

Table 10

Spheres of need and their values of importance depending upon social stratum according to the mothers' educational level

spheres of needs dependent upon one's social stratum	values of importance according to mothers' educational level			
	university college	secondary sch.	8gr. primary	less than 8 gr. primary
MALE STUDENTS				
material resources	4.408	4.800	5.216	5.632
creative work	4.939	4.844	4.382	4.263
freedom	4.827	4.324	4.109	3.970
aesthetic demands	4.398	4.192	3.910	3.723
absorption in work	4.306	3.872	3.633	3.526
intellct. passivity	2.286	2.876	3.574	4.195
leading role	2.878	3.048	3.354	3.667
comfort, convenience	2.816	3.060	3.193	3.481
external influences	2.244	2.296	2.600	3.386
FEMALE STUDENTS				
sociability	5.660	5.192	4.998	4.495
aesthetic demands	5.113	5.092	4.923	4.505
material resources	3.278	4.125	4.353	4.853
creative work	4.299	4.277	4.070	3.734
absorption in work	4.485	4.074	3.925	3.468
comfort, convenience	2.670	3.063	3.579	3.789
leading role	3.124	3.332	3.417	3.596
enjoyment	2.691	3.030	3.088	3.523
intellect.passivity	2.196	2.535	3.096	4.183
external influences	1.479	1.661	2.114	2.725

On the basis of the tendency of the change in values of importance one can state that creative work and freedom[x], absorbing work[xx] and sociability[xxx] become increasingly important with the higher educational level of parents. Material factors, comfortable work, the consideration of parents' wishes, intellectual passivity and the assertion of leading roles belong to those spheres of need where the tendency is reversed both with boys and girls. The lower educational level the parents have, the more important the satisfaction of these needs in the children's career choice becomes. In the group of girls the same tendency emerges with regard to needs concerning values such as enjoyment in work and the possibility of enjoyment within the work itself.

The fact that creativity, absorption, aesthetics and sociability become increasingly important, and intellectual passivity, entertainment and comfort decrease in importance with the higher educational level of parents confirms the hypothesis that the cultural level of the family strongly influences the content of motives playing a complex role in the students' career choices.

This connection also explain the fact revealed in several studies that a considerable part of underprivileged students suitable for more highly qualified jobs do not formulate career conceptions in harmony with their dispositions because in their system of needs the motives which could "drive" them towards more qualified careers have not much weight. Another factor is that, although parental influence has decreased in general, in these social strata it carries more weight than in the groups with higher educational level. From this follows that parents orientate these students towards careers which offer more comfort and material resources instead of orientating them towards more highly qualified careers. This happens in direct and indirect forms through the process of socialisation. Through family socialisation parents transmit preference for values which arouse the students' interest for careers satisfying the needs for comfort and material resources.

In view of the fact that in the career choice of these children the example of their parents and the expectations of their direct environment are still powerful motives, the demands and needs which could encourage their orientation towards eventually more suitable careers are not yet present in their consciousness or present only on a very low level.

A further confirmation of this statement is that there seems to be a particular connection between changes in the tendency of some spheres

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[x] In the breakdown according to the mothers' educational level it proved to be independent of social stratum in the girls' group.

[xx] Social dependence emerged only according to the mother's educational level.

[xxx] Proved to be dependent upon social stratum only with girls.

of need. The strongest connection can be observed between the spheres of need concerning material factors and intellectual passivity. The importance of the latter grows with the growing importance of material factors. There is a converse connection between material factors and absorption in work and in the case of girls between material factors and sociability. Material factors increase in importance with the decrease of the importance of absorption and sociability.

These relations show on the one hand that in that age (13-14 years) the norms and values learned in the process of socialisation begin to come established as a consistent system. In the process of this structuration the family, the parents have a decisive role. On the other hand these relations also show a polarization of students' value orientation - this polarization is unfavourable from the viewpoint of education and especially from the viewpoint of society. On one pole of the imaginary "axis" of value orientation we find those who prefer absorption in work, creativity and work for the community and "reject" material resources, while the other pole is occupied by the group of those students who prefer material resources, intellectual passivity and relative indifference to other people's lives.

CONNECTION BETWEEN SCHOOL ACHIEVEMENT AND THE MOTIVES HAVING IMPACT ON CAREER CHOICE

The survey on the intentions of school and career choice revealed that school achievement played the greatest role in determining career choice. In the selection of career levels average school achievement played the major part. In the case of treating school achievement as a dependent variable the social status and especially the educational level of parents determined the students' achievements in individual subjects and hence their average marks.

Consequently, school achievement, and indirectly school performance, - just like the motivational structure - transmits the differences stemming from the parents' different educational levels and social statuses. The analogy manifested in the function of these two intermediate mechanisms - school achievement and motivational structure - made it necessary to analyse the connections between school achievement and the motivational system of career choice. On the basis of the available data we attempted to analyse the parents' social status empirically with regard to the analogy in the operation of the two systems concerning career choice. We tried to find out the characteristic differences in the motivational systems of students attaining different results in school.

We analysed the connection between achievements in all the eleven subjects and the motivational structure. Here we analyse only the correlation between average school achievement and the motivational structure; the reason for this is partly the limited scope of this essay and partly the fact that the influence of achievements in individual subjects and average result on the motivational structure show great similarity.[12]

We examined the correlation between average school achievement and the motivational structure of career choice on the basis of the differences in the motivational profiles of groups formed along the intervals of the average; the method was the same as in the previous analyses.

We calculated a homogeneity index for demonstrating the differences between the motivational structures of groups with different school achievement; on the basis of this index we established the following order:

The difference between groups with averages of:

2,5-3,49 and 3,5-4,49	was of the order of	10.0
1,0-2,49 and 3,5-4.49	was of the order of	7.5
1.0-2.49 and 2.5-3.49	was of the order of	6.5
2.5-3.49 and 4.5-5.0	was of the order of	4.5
3.5-4.49 and 4.5-5.0	was of the order of	4.5
1.0-2.49 and 4.5-5.0	was of the order of	4.0

The order shows that the difference is the greatest between the motivational structure of the weakest and the best students because in both groups the number of indexes corresponding to the average is the lowest. On the other hand, the motivational profiles of students with average and good results show the greatest conformity because the value of the homogeneity index is the highest here.

We analysed the differences of the motivational structures of students with different school achievements according to spheres of needs. We tried to find a correlation between the growth of average school achievement and the tendency of changes in the most divergent values of importance.

Table 11 shows the spheres of needs which show the greatest differences according to average school achievement and the values of importance attached to them per intervals; there is one table for boys and one for girls.

The change of the values of importance belonging to the spheres of needs which show the greatest differences prove that both with boys and girls the increase of average school achievement entails the growth of the importance of sociability, creativity and absorption in work in career choice. With girls two other spheres of need also increase with better school achievement, they are the aesthetic value of work and its being done in a collective.

The tendency is reversed in the case of spheres of need concerning material resources, comfortable work, small intellectual effort, passivity and external influences, and - in the case of girls - enjoyment in work. The importance attributed to these aspects decreases remarkably with better school achievement.

The connection between average school achievement and changes in the order of preference of spheres of need shows that a considerable ratio of students with poor school performance have a very narrow base of vocational orientation.

In their career choice the dominant motive is finding a job requiring small intellectual effort and a short training period. This is associated with preference for material resources and emphasis on comfortable and enjoyable work.

Among these students motives representing positive values from the viewpoints of career choice and a meaningful, active life have small value not only compared to better students but also in the absolute sense.

Table 11

The spheres of need showing the greatest difference according to general school achievement and their values of importance

spheres of need showing the greatest difference	values of importance according to average school achievement			
	1.0-2,49	2,5-3.49	3.5-4.49	4,5-5
MALE STUDENTS				
material resources	5.571	5.347	4.909	3.917
sociability	4.265	4.503	4.604	5.190
creativity	4.238	4.352	4.584	5.286
absorption in work	3.384	3.524	3.830	4.964
intellectual passivity	4.422	3.798	2.812	1.679
convenience, comfort	3.707	3.228	2.927	2.786
external influences	3.585	2.882	2.164	1.655
FEMALE STUDENTS				
work in a collective	4.723	5.087	5.124	5.453
sociability	4.181	4.568	5.206	5.807
aesthetical value	4.629	4.759	5.096	5.182
material resources	4.892	4.652	4.218	3.427
creative work	3.819	3.985	4.112	4.458
absorption in work	3.470	3.576	3.964	4.833
comfort, convenience	3.747	3.576	3.409	2.828
enjoyment	3.482	3.307	3.074	2.536
intellectual passivity	4.241	3.678	2.865	1.687
external influences	3.361	2.625	1.766	1.083

If we accept that the motivational system of career choice is an integral part of the motivational system "stimulating and activating" every mode of activity and reaction of the individuals, then the motivational "constellation" playing the greatest part in the poor school achievements of these students becomes clear.

As we have said when school achievement was treated as a dependent variable there was a strong significant connection between school marks and the parametres expressing the parents' social status. A similar connection was found between the content of the motivational system and the parents' place in the social structure.

The positive motives important from the viewpoint of career choice are also important from the viewpoint of school achievement. This is confirmed by the fact that the importance of such needs as creative work, absorption in work, aesthetical demands and sociability shows the most positive values in the group of the best students. At the same time intellectual passivity, comfortable work and material resources are considered least important by this group of students. So these students are stimulated by such motivations and try to satisfy such needs that catalyze their school successes and their higher career aspirations as well as the realisation of their conceptions of higher level careers.

So the relation of school achievement and motivational system shows that a positive motivational basis in itself influences career conception and, on the other hand - as part of the individual's motivational system - it influences the quality of career intentions and the chances of their realisation also through school achievement.

The connection of motivational system and school marks shows in itself that the two systems strengthen each other and thus transmit the parents' different social, cultural, material, etc, conditions to career conceptions. On the basis of available data we tried to prove this analogous transmitting function empirically.

With this end in view we examined in what groupings the level of career chosen by students and the motivational structure established along the intervals of school achievement showed the greatest conformity. The tendencies of similarity regarding the two criteria, that is the chosen career level and the average school achievement, were demonstrated by arranging the points of identity[13] in a frequency matrix.

On the basis of this matrix we determined the cases in which the motive-profiles evolved according to the two criteria showed the greatest identity.

The matrix shows in which combination the motivational structure established according to the two criteria manifests the strongest identity.

From the 24 possible combinations the identity is the strongest - with a frequency of 14.5 - in the motivational profiles of students with the average marks of 2.5-3.49 and students orienting themselves towards the career of skilled worker. Next in frequency is the identity of the motivational profiles of students with average marks between 3.5-4.49 with orientation towards medium level careers (average frequency 13.5). The third greatest frequency, 12.5, was experienced between the motivational systems of students averaging 4.5-5 marks and those who opted for a career on the highest level.

Table 12

Frequency matrix of the points of identity in the profiles of spheres of need according to average school achievement and the level of career to be chosen

average school achievement	level of career to be chosen					
	higher	medium	skilled worker	admin.	manual	not yet chosen
1.0 - 2,49	3.5	7	12	9	7.5	5
2,5 - 3.49	5.5	9	14.5	4	6	7.5
3.5 - 4.49	7	13.5	9.5	7	5	9.5
4.5 - 5	12.5	5.5	4	3	2.5	2

Conformity was the smallest in the motivational systems of the best students and those who had not yet decided their career choice; the same small frequency, 2.5, was revealed between the motivational systems of the best students and those who wanted to start work as unskilled workers.

The last line of the matrix is remarkable: the motives of the best students and the frequency of the identity of motivational profiles according to individual career levels decreases sharply after the highest career level and then shows a tendency of linear decrease.

The identities of the motivational profiles established according to school achievement and the level of the career to be chosen reflect the tendency revealed in the statistical survey of career choice intentions.

However, the characteristic coincidences in the motivational system are not simply the reflections of statistical results but the manifestations of the consistent functioning of a complex system.

The parents' position in the social structure involves a relatively well-definable set of values and motivations as well as a determined school achievement. The two intermediate elements determined strongly by the parents' social position strengthen each other and strongly influence the content and nature of career choice conceptions along with the concrete social chance of their realisation.

That is why school achievement and motivation can be considered a transmission system which transmits the difference stemming from social stratification to career choice.

Some conclusions

1. Having accomplished its purpose, the survey has revealed the changes in the career motivational system of students facing career choice decision.

On the basis of the findings it can be concluded that the changes in the motivational system and in the dominance of some motives and the structure of value preferences behind them are closely related to the transformations in the entire value system of the society and also to the social and economic changes which shape, and to some extent determine, the system of values and needs.

2. The survey demonstrated manysidedly that the values and needs manifested in the motivational system of career choice transmitted the considerable differences stemming from the parents' different social and cultural conditions through the functioning of the motivational system, and as a result the position in the social hierarchy strongly determines career choice conceptions and expecially their realisation. This means that today the parents do not influence the career choice of their children directly but indirectly, via the family's socialisation mechanism.

3. The survey confirmed that the values and needs learned and to a certain extent interiorized during the process of socialisation start to become a consistent system at this age. Consequently there are initial signs of the arrangement of motives and values into characteristic profiles. The process of arrangement is strongly influenced by the cognitive and affective contents transmitted by the parents directly or indirectly through their social situation.

4. The motivational profiles in the state of initial structuralization reveal characteristic differences in the sub-samples formed along the selected independent variables - social stratification, career conception and school achievement. The source of these differences is in every case the parents' different social status.

5. The motivational system playing a part in career choice is the integral part of the motivational system stimulating and activating the individual's modes of acting and reacting; hence it can be shaped and developed deliberately by education only in harmony with the individual's motivational basis.

Appendix

The system of motives and their spheres of needs

Aesthetics

clean work
pleasurable
offers opportunity for artistic activity

Sociability

one can help others
one can concern oneself with other people's problems
one can give others something of oneself

Creation

possible to realise individual, original concepts
possibility for invention and innovation
independent creative work

Absorption

offers opportunity for deep thinking
concerns itself with the great questions of life
offers opportunity for meditation and consideration

Ambition

easy to achieve success
socially appreciated career
I can become a recognized and respected person

Leading role

possibility to direct others
one can demand the execution of an order
concerns itself with organisation

Work method

demands meticulous work
one can do things on a large scale
varied work

Collective nature of work

several persons work together
one has to cooperate with others
one can have contacts with many people

Workplace

I like the environment of the work
working conditions are good
I like the working-clothes worn by people in this profession

Comfort, convenience

physically light job
everything is in one place
requires sedentary work

Material resources

I can earn money soon
offers good possibilities for earning money
ensures extra money, tips

Enjoyment

the job may entail some courting
offers a possibility for entertainment
one can always dress prettily

Politics

serves the country's security
one can influence people's way of thinking
one can represent the interests of others

Special interest

makes use of one's knowledge of languages
one must work with figures
gives insight into past times

External influences

it's a tradition in our family
it's my parents' wish
a good acquaintance of mine has the same job

Freedom

offers possibility for free movement
requires much travelling
leaves much free time

Intellectual passivity

one must not count a lot
requires a short learning period
one must not rack one's brains

Physical activity

needs physical strength
offers the possibility for doing some sport
ensures a healthy way of life

Notes

1 János Csirszka, a Hungarian educator, has done pioneering work in laying the scientific foundations of vocational guidance. His "motivational test" is being extensively applied in psychological examinations, both individually and in groups, for getting to know the motives of career choice.

2 In our selection of the 7th class our assumption was that by then conceptions about school and/or career choice had been established; at the same time those factual barriers of higher studies strongly felt in the 8th class when filling out the application forms would not yet exert such a strong influence. The survey confirmed this assumption.

3 Here and later we are going to give the mathematical-statistical result of the independence examination. The interpretation of the signs is as follows: the hypothesis that the examined factors are independent of each other can be rejected with a probability of 99.9 per cent. The value of C (contingency-coefficient) shows the closeness of the connection. Its value can be between 0 and 1.

4 Congruence: schooling level and occupation are in harmony, they conform to each other.

5 István Dancs offers the following definition: "The group of reference means the group of persons who, from one or another viewpoint, figure as frameworks or examples for the individual in establishing his/her opinions and attitudes and shaping his/her behaviour."

6 In Hungarian schools marks from 1 to 5 measure students' knowledge and state of preparedness.

7 For the sake of unified interpretation: a student was considered an applicant for a career if he answered the open-ended question by indicating a real occupation or job for which one can prepare in (or outside) the school system and which is part of the system of valid professions.

8 In the third chapter of our essay, in examining the motives of career choice, we demonstrate that students choosing the career of skilled worker are motivated by material factors much more than the average. In the case of students choosing other career levels materially inspired motivations are much weaker.

9 In the psychological sense motives are inner drives deriving from some need; their functioning together is called motivation.

10 The differences manifested in the motivational systems and needs of students belonging to different social strata were expressed in motivational profiles and in the values of importance attributed to spheres of needs established on the basis of the position, order of importance of the possible motives of career choice. The value of importance is an index which is the weighted frequency average formed from the scores given to the answers of the motivational questionnaire.

11 Csirszka's motivational examination arranges the 54 motives in 18 spheres of need. Each sphere of need contains 3 logically connected motives. The motives and the system of spheres of needs can be found in the appendix.

12 The primary cause is probably the high intercorrelation between achievements in individual subjects. The higher the average achievement, the higher the intercorrelation.

13 The frequency averages in the matrix show the average number of points of conformity out of the 18 possible points in the pairing indicated by the point of intersection.

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